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XIV.—*Note on two Species of Asiatic Bears, the "Mamh" of Balúchistán and Ursus pruinosus, Blyth, of Tibet, and on an apparently undescribed Fox from Balúchistán.*—By W. T. BLANFORD, F. R. S., &c.

(Received and Read Novr. 7th, 1877.)

For some years past I have endeavoured to obtain a specimen of the small bear, which is known to inhabit Baluchistan and the hilly regions of Western Sind. This bear is well known to residents in Sind by its Baluch name of "Mamh" or "Mum," and individual animals have on rare occasions been found straying on to the alluvial flats of the Indus valley. I first heard of a dark-coloured bear in Western Balúchistán, when I accompanied Major St. John on the Perso-Baluch boundary Survey in the year 1872, but neither at that time, nor in the course of several months spent in Sind in 1875-76-77, could I procure a skin for examination. I have seen fresh tracks of the animal in the Khirthar range in Western Sind, and not only I myself, but several friends have endeavoured to obtain a specimen. Not long since a discussion took place in the columns of the 'Pioneer' newspaper as to this animal, and it was suggested that it might be a baboon, and hinted that it must be a myth. The latter hypothesis appeared supported by the extraordinary tales told of the animal by the inhabitants of the country, such as their belief that, except in the presence of man, it always walks on its hind legs, and a still more remarkable tale, that all "Mamhs" are females, that each seizes a man and forces him to cohabit with her, after laming him to prevent his escaping, the young be-

ing, of course, "Mamhs" like the mother. Probably the folk lore of Baluchistan would furnish many other wonderful stories of the animal, if enquiry were made.

Quite recently my friend Major Mockler, the Political Agent at Gwádar on the Makrán coast, who has very kindly been trying, for some time past, to procure this and other animals for me, obtained a skin from a Baluch chief, Mir Wajedád of Túmp, about 70 miles north of Gwádar. This skin, which I received a few days since, had unfortunately remained for two months at Gwádar during Major Mockler's absence and without his knowing of its arrival, and much of the hair has consequently come off, but still there is abundance left to shew the characters of the fur. The skull is wanting, but the feet have been partly preserved.

From the circumstance that I was assured by all my native informants both in Sind and Baluchistan that the "Mamh" was a black bear, I was rather inclined to anticipate that it might prove to be the common Indian sloth bear *Ursus (Melursus) labiatus*. We have no precise information as to the bears of Afghanistan, but *Ursus isabellinus* of the Western Himalayas and *U. syriacus* which inhabits Persia are both pale coloured animals, and although the Indian bear is not, so far as I am aware, known to occur within the Indus valley, or the desert tracts which bound that valley to the eastward, (it is mentioned by Stoliczka as a very rare straggler into the easternmost part of Cutch,) still it might of course be found in the Balúchistán hills. A single glance at the skin sent by Major Mockler is however sufficient to shew that it belongs to a very different animal from the sloth bear of India. The latter has long coarse black hair and very long claws; in the Balúchistán skin the hair is brown, rather short, and moderately fine, and the claws are unusually small.

It is impossible to identify the Sind and Balúchistán animal with the black *Ursus torquatus* (commonly but most improperly known as *U. tibetanus*) and the only remaining bears of western and central Asia are *U. arctos*, *U. syriacus* and *U. isabellinus*. It is still a moot point amongst naturalists how far these forms are distinguishable, but they all agree in being large bears, considerably exceeding *U. labiatus* in dimensions, whilst the skin from Balúchistán entirely bears out the statement made by various observers, and confirmed by all the information which I have been able to procure in Sind, that the "Mamh" is an exceptionally small form of the genus. Even if the present specimen be immature, the texture of the fur appears harsher, and the hairs shorter than in *U. arctos* and its allies, whilst the colour distinguishes the species from *U. torquatus*. There can I think be but little doubt that the present animal is unnamed; it may be an exceptionally small race of *U. arctos*, but even in this case the difference is so great as to entitle the Balúchistán animal to a distinctive

name. I propose therefore to call it, from the ancient name of the country it inhabits.

URSUS GEDROSIANUS, sp. nov.

Syn. *U. sp. (?? Melursus labiatus)* Zoology of Persia, p. 47.

Ursus minor, brunneus, torque pectorali albido, pilis breviusculis indutus, unguibus brevibus. Longitudo tota vix quinque pedes : unguibus singularibus in pede antico sesqui-pollicaribus.

The colouration is nearly uniform, being a dark rufous brown, much the same as the ordinary tint of European individuals of *U. arctos*. The shoulders and the outside of the limbs appear to be darker than the back, the belly paler. On the breast there is a narrow white semicircular collar, the ends of which are not prolonged upwards in front of the shoulders as in *U. isabellinus*; the muzzle is whitish and the extremity of the chin white. The ears are not preserved. The claws are dark coloured, (several have been lost,) the inner claw on the fore foot measures 1·6 inches in a straight line from base to tip, the second claw on the hind foot 1·25 in the same manner. The sole of the hind foot, somewhat dried and contracted of course, measures 7 inches, and the whole skin, which has been dressed, but apparently not stretched, is about 4½ feet long from nose to rump.

The fur, though not very coarse, is harsh and stiff, the hair is about 2½ inches long on the shoulders, but not more than 1½ elsewhere. The hairs are rather thin, probably from the animal having been killed in the hot season. Major Mockler writes to me that he is endeavouring to procure a better specimen and a skull, and I hope that it will be possible before long to give a more complete description of this bear and its affinities.

Concerning the range of *U. Gedrosianus*, it appears to be found throughout the hills of Balúchistán to the foot of the Persian highlands. When travelling through western Balúchistán in 1872, Major St. John learned that the pale coloured Syrian bear replaces the dark Balúchistán animal near Bam in Narmashir. To the west, as already noticed, the 'Mamh' is found in all the higher hills of western Sind, from the neighbourhood of the sea to the Bolán pass, and it probably occurs throughout Kelát. To the northward we know very little about bears; none are mentioned by Hutton in his 'Rough notes on the Zoology of Candahar,' J. A. S. B. XIV, p. 340, &c., and we have no precise information as to the kind which inhabits Afghanistan, except that Burnes (Cabool, p. 163), says it is of a reddish brown colour, which renders it possible that the species may be identical with that found in Balúchistán.

Before describing a fox, of which two specimens were sent by Major Mockler with the skin just described, it may be as well to give a descrip-

tion of another imperfectly known species of bear, for the skin of which I am indebted to Mr. L. Mandelli. The skin was brought to Mr. Mandelli at Darjiling by a man who said that he had purchased it at Lhassa, and that the animal inhabited the plains in the neighbourhood of that city. I could find no description of this animal until Dr. Anderson called my attention to a notice by Mr. Blyth in the Society's Journal for 1853, Vol. XXII, p. 589, of an imperfect skin, supposed to be that of a variety of the Himalayan black bear (*Ursus torquatus* v. *tibetanus*) for which the name *pruinus* was suggested, should the species prove distinct. Whilst I doubt whether a name thus bestowed has any claim to recognition, I shall retain the term proposed in the present case, as it appears unobjectionable. The specimen was briefly noticed in Blyth's Catalogue of the Mammalia in the Museum of the Asiatic Society, and in Jerdon's 'Mammals', as the 'Blue Bear' of Tibet, a name under which the original specimen was sent by Dr. Campbell. The skin now received is perfect and in fair condition, but the greater part of the skull is wanting, only the jaws having been retained with the skin, and even of these the hinder teeth are defective. The animal was probably of considerable size, judging by the teeth, which are much larger than any in the skulls of *U. isabellinus* in the Museum, except in one case, of which more presently. It is manifest that the animal is distinguished by the characters of the fur, claws and dentition, from *U. torquatus*, and that it is in all probability closely allied to *U. isabellinus*, and consequently to the European bear, *U. arctos*.

URSUS PRUINOSUS.

Blyth, J. A. S. B., 1853, XXII, p. 589.

'Blue Bear' of Tibet; Blyth, Cat. Mam. Mus. As. Soc., p. 76.—Jerdon, Mammals of India, p. 71.

Ursus major, affinis U. isabellino, supra fusco-fulvus, pilis dorsalibus longiusculis, confertis, submollibus, nigris, fulvo-terminatis, capite humerisque fulvis, artubus nigris, unguibus pallidis fortibus.

The general colouration above is tawny brown, palest on the head and shoulders, darker on the back, where the hairs are black with tawny tips, and black on the limbs. The head is tawny, much of the same colour as *Ursus isabellinus*, a little darker and browner under the eyes and on the forehead: the ears have tufts of long hair mixed tawny and black. Behind the head the neck is rather darker, but on the upper part of the breast there is a broad pale tawny crescentic band, with the upper terminations prolonged upwards, in front of the shoulder, almost to the back, precisely as in *U. isabellinus*. In *U. labiatus* and *U. torquatus* the band is confined to the breast, and the same appears to be the case in *U. Gedrosianus*. The upper and hinder parts of the shoulders in *U. pruinus* are covered with tawny

hairs about $3\frac{1}{2}$ to 4 inches long, whilst the interseapulary region, like the rest of the back, is clothed with black hairs, fulvous at the tips. The hair is moderately fine and about 3 inches long on the back. Apparently the animal when killed was about to lose its long winter coat, for the hair is much felted and matted together in places, and a short fine tawny hair is seen to be growing beneath. The hoary appearance given to the fur by the fulvous tips is extremely characteristic, but it may very possibly be less conspicuous at some seasons.

The claws are pale in colour, strong, and moderately curved, the first (and largest) claw on the fore foot measuring 2.2 inches in a straight line from insertion to tip, and 2.75 round the curve; the corresponding measurements of the first hind claw are 1.3 and 1.4 inches.

The animal is evidently old, several of the premolars have been lost, and the alveoli obliterated; the molars are much worn. As already mentioned the size of the teeth and especially of the molars is unusually large; the canines appear very little larger than in *U. labiatus*. The posterior molar in the upper jaw is wanting on one side and imperfect on the other, it must be nearly $1\frac{1}{4}$ inches long and its anterior portion is 0.88 broad, the ante-penultimate (1st true molar) measures 0.9 inch in length by 0.72, the tooth anterior to this or hindmost premolar is 0.62 long. The three together when perfect must have measured nearly 3 inches in length. The 1st lower true molar measures 1.02 long by 0.53 broad, the second 1.05 by 0.63, the 3rd and hindmost 0.83 by 0.62.

It has already been mentioned that there is in the Society's old collection, now in the Indian Museum, a very large bear's skull attributed to *Ursus isabellinus*. The skull, No. 224, G. of Blyth's Catalogue is called "Enormous skull from Kashmir purchased 1858." I was, I believe, with Mr. Blyth when he purchased this skull in the Calcutta Bazaar, at the shop of a dealer in all kinds of similar articles, where heads of various animals from very different parts of India were mixed together. Thus I remember myself purchasing on the same occasion an *Ovis Hodgsoni* skull and a fine frontlet of *Cervus Duvaucelli*; one of course from Tibet originally, the other from the plains of India. I should consequently attach no importance whatever to the supposed locality.

Now the teeth of this large bear's skull resemble those in the jaws of Mr. Mandelli's specimen of *Ursus pruinosus* so closely, that it is by no means improbable that both may have belonged to the same species. The former is larger than any other skull of *Ursus isabellinus* in the Museum and the molar teeth are unusually large, though still inferior in size to those of *U. pruinosus*. The following are a few dimensions:

Length from anterior edge of <i>foramen magnum</i> to end of premaxillaries,	12.5
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Breadth across hinder portion of zygomatic arches,	8·8
Breadth of frontal bones between orbits,	3·3
Breadth of palate between posterior molars,	1·9
Length of 3 posterior molars in upper jaw,	2·7
Length of lower jaw from angle to symphysis,	9·8

The bears of India and the neighbouring regions, so far as known, now consist of the following species :

Ursus Malayanus. Malay Peninsula and Burma to Arakan.

U. torquatus. Forest region of the Himalayas, and, it is said, the hills South of Assam.

U. pruinus. Plains of Eastern Tibet.

U. isabellinus. Western Himalayas, chiefly above the forests, unknown in Tibet, and even in the Upper Indus Valley, Ladakh, &c.

U. (Melursus) labiatus. Plains and hills of Peninsular India and Ceylon, extending, it is said, into the hills South of Assam.

U. Gedrosianus. Hills of Western Sind.

Of the above *U. pruinus* is the only species not found within Indian limits. The discovery that *Ursus pruinus* is widely different from *U. torquatus* removes the last excuse for applying to the latter animal a name derived from a country in which no such species exists. The range of *Ursus torquatus* has now been fairly ascertained to be Cis-Himalayan in Southern Asia, although some naturalists refer bears from Japan and Eastern Siberia to the same species, and as the use of the specific name *Tibetanus* involves a serious error, some other term should be substituted.

Fortunately in this instance there is no need to suggest a new name, for Wagner,* in 1841, proposed to call this bear *U. torquatus* on the ground that the animal not being known in Tibet, the original name given by Cuvier was inappropriate. Wagner's name was adopted by Schinz†, and subsequently by Dr. J. E. Gray‡, who however appears to quote Schinz as its author. Mr. Blyth, in the 'Catalogue of the Mammalia in the Museum Asiatic Society,' p 77, referred *U. torquatus*, Schinz, to *U. labiatus*, but this is evidently a mistake, as can be seen from Schinz's description and from the facts mentioned above. It is probable that Mr. Blyth, who worked under the disadvantage of having a very imperfect scientific library at command, took the reference from some other authority.

No one can be more averse than I am in general to changing specific names, but I think, following the British Association rule, that a name

* Schreber, Säugethiere, Supplement band, II, p. 144.

† Syn. Mam., I, p. 302.

‡ P. Z. S., 1864, p. 688; Cat. Carn. Pach. Edent. Mam., Brit. Mus., 1869, p. 225.

should be altered when it involves serious error, that the change is justified in the present instance.

With the skin of *Ursus Gedrosianus*, Major Mockler sent to me two well-preserved skins and a perfect skeleton of a singularly small and very grey fox, with the following note: 'I send two skins and a skeleton of the 'Poh' which seems to be a very diminutive fox. They were shot by one of my 'sepoys in the hills about 15 miles from Gwádar; he sat up at night for 'them over water, and threw about some dates and fish as bait.'

The 'Poh' appears to me to be the same as the small Bushire fox, which, in the Zoology of Persia,* I referred, with doubt, after examining a young living specimen at the Zoological Gardens in London, to *Canis famelicus*,† Rüpp. That the present animal must however be distinct from that described by Rüppell is, I think, shewn by the dimensions: in *Canis famelicus* the length of the head is 5 inches 6 lines, (French measure = 5·85 English,) and the whole length from nose to end of tail 2 ft. 10 in. (about 3 feet English,) of which the tail is 1 ft. 2 in. (1 ft. 3 in. English). Now in the little Baluchistan fox, the skull is only about 3½ inches long and the whole length of the skeleton 2 ft. 7 in. of which about 1 ft. 1 in. belong to the tail. It is not clear whether Rüppell in measuring the tail included the hair at the end, if he did, that would account for 2 or 3 inches of the length and the present animal would have a proportionally longer tail, but in any case, allowing for the probability that the measurements given in Rüppell's work are from a stuffed specimen, the difference in the size of the head is quite inconsistent with the identification of the Baluchistan animal with *Canis famelicus*. The colour moreover in the former is much greyer, and the chesnut dorsal stripe of *C. famelicus* wanting or very faintly represented. I propose to name the Baluchistan fox from its grey colour.

VULPES CANUS, sp. nov.

'*Vulpes famelicus* ? Rüpp.' Eastern Persia, II, p. 41.

V parvus, *V. famelico affinis sed minor, magis griseus, atque fasciâ dorsali castaneâ fere vel omnino carens, capite nuchâ tergoque anteriore interdum rufescentibus, dorso nigro-lavato, pilorum apicibus albis, abdomine albido, auriculis extus isabellino-griseis, caudâ pilis longis albidis supra posticeque nigro terminatis, indutâ. Long. tota, pilis ad extremitatem caudæ inclusis, circa 33, caudæ 15, crani 3·6, poll. angl.*

The general colour is grey, blackish on the back and the upper por-

* Eastern Persia, Vol. II, p. 41.

† Rüppell, Atlas, p. 15, Taf. 5.

tion and end of the tail, the lower parts from the breast including the under surface of the tail white, the muzzle in front of the eyes dusky brown, sides of the head pale rufous, forehead more rufous, the hairs being brown at the base with scattered white tips, which are also found on the dusky muzzle.

The ears are grey outside with a slight rufescent tinge, white inside. In one specimen the ears are more dusky than in the other, which is shewn by the teeth of the skull to have been an aged animal. The hair of the body is soft and long, the longest hairs on the middle of the back being about 2 inches in length, with much fine under fur of a grey colour, dark ashy in one specimen, pale ashy in the other, the longer hairs on the back are black near the ends, the tips of many being white. On the anterior portion of the back in one specimen, the hairs are rufous between the grey base and the blackish tip, and the rufous colour extends along the back of the neck. This imperfectly marked rufous colour doubtless represents the chesnut stripe in *V. famelicus*. The gape and chin are dusky, the breast ashy grey, the abdomen white. The fore legs are pale rufescent in the older specimen, dusky grey in the younger, the hind legs rufous brown outside in the one animal, dusky black in the other, the tail is very bushy, the hairs grey or white with long black ends above and at the tip, so that the tail appears blackish except below, where it is white or nearly white. The skins are too much stretched for their measurement to be of any use, except in the case of the tail, which measures 15 to 16 inches; of this the hairs at the end are about $2\frac{1}{2}$ in. The measurements above given are founded on the skeleton.

The skull, which, as already mentioned, is that of an aged animal, is very small and almost destitute of crests. The hinder portion of the brain pan is much rounded and the small occipital crest very low on the back of the head, being in fact about equally distant from the *foramen magnum* and the top of the skull. The following are measurements of this skull:

	inches	metre
Length from occipital crest to anterior termination of premaxillæ,	3.65	·092
„ from anterior margin of <i>foramen magnum</i> to do.,	3.35	·084
„ of suture between nasal bones,	1.12	·028
Breadth of nasal portion of skull at posterior termination of premaxillæ,	0.57	·014
„ of frontal region behind postorbital processes,	0.73	·018
„ of brain case where widest across parietal region,	1.4	·025
„ of skull across zygomatic arches,	2.02	·0505

Length of bony palate from anterior termination of premaxillæ to opening of posterior nares, (measured to end of small posterior projec- ting process in the middle of the palate,) ...	1·85	·047
Breadth of bony palate between penultimate mo- lars (1st true molars,)	0·47	·012
Length of last upper premolar,	0·38	·0095
„ of 1st molar,	0·26	·0065
Breadth of do.,	0·37	·009

Of the limb bones the humerus is 3·1 inches long, the radius 3, the femur 3·13, and the tibia 3·58.

P. S.—Since the preceding description of *Ursus Gedrosianus* was in type, Dr. Duke has written to the ‘Pioneer’ to say that he has received two imperfect skins of a ‘Mamh’ obtained near Quetta, and that they are black. It remains to be seen whether the black and brown bears of Baluchistan are varieties or distinct. The former is more probable.

XV.—*On an apparently new hare, and some other mammalia from Gilgit.*

—By W. T. BLANFORD, F. R. S.

(Received and Read Novr. 7th, 1877.)

A small collection of mammals made in the course of last year by Captain Biddulph in the extreme north-western part of Kashmir was left by him in the Indian Museum, with a request that I would examine the specimens. The skins comprise a fox, an otter, a hare, a *Lagomys*, and a mouse.

The fox appears to me to be probably a form of *Vulpes montanus* in summer dress. A similar specimen was obtained by Captain Biddulph in Káshghar and made over by him to Dr. Stoliczka. The fur is very short; there being, in fact, scarcely anything but the underfur left, and even that is thin. Under these conditions the colour differs widely from that of *V. montanus* in its winter garb, and most skins are taken when the fur is in fine condition. The specimen is from Hanza (probably a place of that name N. N. E. of Gilgit), and was obtained at an elevation of 8000 feet. Another precisely similar, except that the ears were less black, was also procured.

In the skin before me, the face is rufous, deepest in front of the eyes, the ears sooty black outside, the middle of the back ferruginous with a brown tinge from the under fur, a very distinct rufous cross band on the shoulders, so as to form a marked cross on the back, and the sides of the body very pale. Lower parts dirty white. Tail not full, very woolly, (as is the fur generally,) slightly rufous above, elsewhere dirty white mixed with